Message

From: Alpern, Michael [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=7A6D1FE1F61646D6B96ED0DD6F6C33CD-ALPERN, MIC]
Sent: 10/26/2020 8:16:42 PM
To: Calvino, Maria Soledad [Calvino.Maria@epa.gov]; Glenn, William [Glenn.William@epa.gov]
CC: Schmidt, David [Schmidt.David@epa.gov]
Subject: RE: News Clips 10/26

Really good pull this week, thanks Sole!

From: Calvino, Maria Soledad <Calvino.Maria@epa.gov>
Sent: Monday, October 26, 2020 9:31 AM
To: Alpern, Michael <Alpern.Michael@epa.gov>; Glenn, William <Glenn.William@epa.gov>
Cc: Schmidt, David <Schmidt.David@epa.gov>
Subject: News Clips 10/26

PALOS VERDES SHELF (resulting from press inquiry)
L.A.'s coast was once a DDT dumping ground. No one could see it — until now
https://www.latimes.com/projects/la-coast-ddt-dumping-ground/
Not far from Santa Catalina Island, in an ocean shared by divers and fishermen, kelp forests and whales, David Valentine decoded unusual signals underwater that gave him chills.
The UC Santa Barbara scientist was supposed to be studying methane seeps that day, but with a deep-sea robot on loan and a few hours to spare, now was the chance to confirm an environmental abuse that others in the past could not. He was chasing a hunch, and sure enough, initial sonar scans pinged back a pattern of dots that popped up on the map like a trail of breadcrumbs.
The robot made its way 3,000 feet down to the bottom, beaming bright lights and a camera as it slowly skimmed the seafloor. At this depth and darkness, the uncharted topography felt as eerie as driving through a vast desert at night.
And that's when the barrels came into view.
Barrels filled with toxic chemicals banned decades ago.
Leaking.
And littered across the ocean floor.
"Holy crap. This is real," Valentine said. "This stuff really is down there.
"It has been sitting here this whole time, right off our shore."
Tales of this buried secret bubbling under the sea had haunted Valentine for years: a largely unknown chapter in the most infamous case of environmental destruction off the coast of Los Angeles — one lasting decades, costing tens of millions of dollars, frustrating generations of scientists. The fouling of the ocean was so reckless, some said, it seemed unimaginable.
As many as half a million of these barrels could still be underwater right now, according to interviews and a Times review of historical records, manifests and undigitized research. From 1947 to 1982, the nation's largest manufacturer of DDT — a pesticide so powerful that it poisoned birds and fish — was based in Los Angeles.
An epic Superfund battle later exposed the company's disposal of toxic waste through sewage pipes that poured into the ocean — but all the DDT that was barged out to sea drew comparatively little attention.
Shipping logs show that every month in the years after World War II, thousands of barrels of acid sludge laced with this synthetic chemical were boated out to a site near Catalina and dumped into the deep ocean — so vast that, according to common wisdom at the time, it would dilute even the most dangerous poisons.
Regulators reported in the 1980s that the men in charge of getting rid of the DDT waste sometimes took shortcuts and just dumped it closer to shore. And when the barrels were too buoyant to sink on their own, one report said, the crews simply punctured them.
The ocean buried the evidence for generations, but modern technology can take scientists to new depths. In 2011 and 2013, Valentine and his research team were able to identify about 60 barrels and collect a few samples during brief forays at the end of other research missions.

One sediment sample showed DDT concentrations 40 times greater than the highest contamination recorded at the Superfund site — a federally designated area of hazardous waste that officials had contained to shallower waters near Palos Verdes.

The world today wrestles with microplastics, bisphenol A (BPA), per- and polyfluoroalkyl substances (PFAS) and other toxics so unnatural they don't seem to ever go away. But DDT — the all-but-indestructible compound dichlorodiphenyltrichloroethane, which first stunned and jolted the public into environmental action — persists as an unsolved and largely forgotten problem.

Signs warning of tainted fish to this day still cover local piers. Recent studies show our immune systems may be compromised. A new generation of women — exposed to DDT from their mothers, who were exposed by their mothers — grapples with the still-mysterious risks of breast cancer.

The contamination in sea lions and dolphins continues to stump scientists, and the near extinction of falcons and bald eagles shows how poisoning one corner of the world can ripple across the whole ecosystem.

Decades of bureaucracy and competing environmental issues have diverted the public's attention. Valentine hoped digging up physical evidence from the seafloor would get more people to care, but calls and emails to numerous officials since his discovery have gone nowhere.

Rallying for the deep ocean is not easy, Valentine acknowledged, even though we rely on the health of these waters far more than we know: "The fact that there could be half a million barrels down there ... we owe it to ourselves to figure out what happened, what's actually down there and how much it's all spreading."

Once hailed as a major scientific achievement, DDT combated both malaria and typhus during World War II. It was so potent that a single application could protect a soldier for months. The U.S. Army's chief of preventive medicine, Brig. Gen. James Simmons, famously praised the chemical as "the war's greatest contribution to the future health of the world."

Manufacturers rushed to supply the postwar demand — including Montrose Chemical Corp. of California, which opened its plant near Torrance in 1947. The chemical industry was celebrated at the time for boosting the nation into greater prosperity and preventing crop failures across the globe. The United States used as much as 80 million pounds of DDT in one year.

But there were two edges to this sword. A top U.S. Department of Agriculture scientist had urged the military not to allow DDT insecticides for commercial use without further research, worried about "the effect they may have on soils and on the whole balance of nature."

Even Swiss chemist Paul Hermann Müller, who won a Nobel Prize in 1948 for discovering DDT as a pesticide, cautioned that he himself did not fully understand how the chemical interacted with the living world. Decades of painstaking study still lay ahead for biologists, he said.

Rachel Carson, a marine biologist, heeded these words in 1962 and ignited a movement against what she called "the reckless and irresponsible poisoning of the world that man shares with all other creatures."

Her revolutionary book "Silent Spring" evoked the sudden silence of songbirds missing in the skies — alerting unknowing people to the dangers of long-term exposure, even in tiny doses, to a chemical that they could not physically avoid.

DDT is so stable it can take generations to break down. It doesn't really dissolve in water but stores easily in fat.

Compounding these problems is what scientists today call "biomagnification": the toxin accumulating in the tissues of animals in greater and greater concentrations as it moves up the food chain.

Consider phytoplankton, the microscopic algae that are the base for almost all food webs in the ocean.

DDT-contaminated phytoplankton get eaten by zooplankton, which fish and whales consume by the thousands.

In 1969, shipments of jack mackerel from Southern California were recalled because DDT levels were as high as 10 parts per million, or ppm — double what the U.S. Food and Drug Administration considered safe for consumption at that time.

Tumors started appearing on bottom-feeding fish like white croaker.

In that same year, California brown pelicans, which eat the fish, laid eggs on Anacapa Island with chemicals broken down from DDT averaging 1,200 ppm.

Scientists discovered that the chemicals led to eggshells so thin that the chicks would die. Bald eagles had also vanished from the Channel Islands, along with peregrine falcons and the brown pelicans.

Similarly, sea lions with more than 1,000 ppm in their blubber were giving birth to pups prematurely. Bottlenose dolphins had concentrations as high as 2,000 ppm.

Montrose executives aggressively defended DDT through the 1960s as the public reckoned with these alarming new concerns about food chains and poisoned ecosystems.

They said in letters and editorials that DDT played a vital role in society when properly used and was not a serious threat to human health. They accused environmentalists of scare tactics and misleading information and touted the company's reputation of making the best DDT in the world — a technical grade sold to other firms that would then dilute it into specific insecticides.

The company was supplying governments from Brazil to India, they said, and even the World Health Organization. International malaria eradication programs turned to Montrose for supplies.

But after years of intense inquiries, government officials said they were convinced that the chemical posed unacceptable risks to the environment and potential harm to human health. In 1972, the U.S. finally banned the use of DDT.

Demand was still strong in other countries, however, so the chemical plant in Los Angeles kept churning out more. Montrose managed to operate for another 10 years before the factory, looming over Normandie Avenue near Del Amo Boulevard, finally went dark.

In the early 1980s, a young scientist at the California Regional Water Quality Control Board in Los Angeles heard whispers that Montrose once dumped barrels of toxic waste directly into the ocean. People at the time were hyper-focused on the contamination problems posed by poorly treated sewage, but Allan Chartrand was curious about the deep-sea dumping and started poking around.

He called Montrose, and to his surprise, the staff pulled out all their files. He and a team of regulatory scientists combed through volumes of shipping logs, which showed that more than 2,000 barrels of DDT-laced sludge were dumped each month. They did the math: Between 1947 and 1961, as much as 767 tons of DDT could have gone into the ocean.

"We found actual photos of the workers at 2 in the morning dumping — not only dumping barrels off of the barges in the middle of the Santa Monica Basin," he said, "but before they would dump the barrels, they would take a big ax or hatchet to them, and cut them open on purpose so they would sink."

On a recent morning, Chartrand rummaged through stacks of yellowing papers and reports detailing everything he had discovered so many decades ago. Now a seasoned eco-toxicologist in Seattle, he never understood why all this information wound up gathering dust — undigitized and largely forgotten.

He pulled out faded reports that his team had published from 1985 to 1989, summarizing what they had found at Montrose and in the water quality control board's own records. "This makes my heart sing," he said, as he reread conclusions that still resonate today.

Chartrand said he was astonished to learn this kind of activity was allowed. Federal ocean dumping laws dated back to 1886, but the rules were focused on clearing the way for ship navigation. It wasn't until the Marine Protection, Research and Sanctuaries Act of 1972, also known as the Ocean Dumping Act, that environmental impacts were considered.

Dumping industrial chemicals near Catalina was an accepted practice for decades.

Landfills could hold only so much, and people were concerned about burning toxics into the air — but the Pacific Ocean seemed a good alternative. Explosives, oil refinery waste, trash and rotting meats all went into the ocean, along with beryllium, various acid sludges, even cyanide.

Dilution is the solution to pollution, the saying used to go, but at what cost? The ocean covers more than 70% of the planet, but it can absorb only so much. What we eat, what we breathe is ultimately dictated by what we do to the sea.

"It's just sad, sad, sad," Chartrand said. "When stuff's being dumped offshore like that, it's in the dead of night, nobody's seeing it. It's out of sight, out of mind."

For years, a company called California Salvage docked at the Port of Los Angeles, loaded up Montrose's DDT waste and hauled everything out to sea. Workers were instructed to dump in a designated spot, dubbed Dumpsite No. 1, that was about 10 nautical miles northwest of Catalina.

Each container was individually broken before disposal overboard. Drums containing chemicals were emptied and allowed to sink after holes were placed in the top, bottom and sides.— Chartrand et al, March 1985

But compliance inspections were infrequent, and crews sometimes took shortcuts. Chartrand discovered notes from California Salvage indicating they had decided to dump elsewhere because Dumpsite No. 1 was in line of a naval weapons firing range.

The report concluded that these companies likely dumped in closer, much shallower waters.

"Our report caught them red-handed," Chartrand said. "Here I was this young guy — newly married, just had my first kid, got my new job at the water quality control board — heard about this dumping, went down to Montrose ... and it very quickly got so much bigger than me."

In 1990, a few years after Chartrand compiled his reports, the Environmental Protection Agency teamed up with the state and launched a court battle against Montrose and a number of other companies under the Superfund law. Environmental

groups expected the lawsuit — the largest in U.S. history alleging natural resource damages from chemical dumping — to be a landmark case in resolving coastal pollution issues.

Chartrand and dozens of others were pulled in to testify. Science was disputed in court, evidence debated, expertise challenged. In numerous depositions, former factory workers were grilled on how they operated.

Bernard Bratter, a Montrose plant superintendent, described how they would call California Salvage to dump its acid waste in bulk: "The trucks would come in, we'd load the trucks, they would then haul them down to the harbor where they had their barges, and the truck would unload into the barge, and when there was enough liquid in the barge, they'd haul the barge out to the specified area in the ocean and release the acid."

Montrose officials, who had filed counterclaims, asked the court to exclude the evidence presented on ocean dumping — arguing that such dumping wasn't relevant.

They said the government's natural resources damage claim was based solely on the release of DDT through the sewer system to the Palos Verdes shelf, and that attorneys could not prove that Montrose's disposal of DDT-contaminated waste into the deep ocean actually hurt various bird species.

They also questioned Chartrand's calculations of how much DDT went into the ocean and made the point that there was nothing secret or illegal about the dumping at the time. The government, they said, allowed this to happen.

In an interoffice correspondence in 1985, Samuel Rotrosen, Montrose's president at the time, wrote that "it is true that from 1947, when the plant started up, until sometime in the 1950s we disposed of our waste sulfuric acid at sea through California Salvage Company who barged it out to state-approved dumping areas.

"We stopped this disposal after we installed our acid-recovery plant, at which time we sold the acid to fertilizer makers," he said. "Because our acid contained traces of DDT (50-250 ppm) ... the fertilizer producers would no longer take it, and so we disposed of it at landfills."

As the court battle waged on, a handful of curious scientists kept trying to solve the DDT questions at the bottom of the ocean.

Chartrand did not have a deep-sea robot, but he figured out a way to collect sediment samples and clumps of tar by dragging a large otter trawl net along the seafloor. He also took samples of rattails, kelp bass and other fish from different depths of the ocean.

He called Robert Risebrough, a legend among DDT scientists whose testimonies in the 1960s and early 1970s helped Congress understand why the chemical should be banned. Risebrough, a UC Santa Cruz research ecologist at the time, ran the samples and authored a sweeping study. He confirmed the existence of considerable concentrations of DDT chemicals in both the sediments and the "tar cakes" by the dumpsites.

It was unclear how much the DDT could move through the water at such depths, where there is little oxygen, he said, but the dumping was close enough to the Channel Islands that the upwelling of deeper water common in this area could stir up what enters the food chain.

And if the barrels were indeed punctured, he added, some of the sludge could have leaked out on its way down to the seafloor.

He had a strong suspicion that the disappearance of bald eagles from Catalina was connected to the dumping operations, but he didn't have the data to confirm it. DDT contamination was also significantly higher in birds that fed on fish, compared with birds that ate mostly rodents and prey on land — another clue that the DDT from the ocean dumping was harming wildlife.

He called for more studies to connect the dots, but Chartrand had run out of funding. Chartrand held on to what he could — even the remaining samples that neither he nor Risebrough could bear to throw away. Some of that deep sea sediment has yet to be tested.

"They're in a deep freeze now, but because it's DDT, even though it's been 30, 40 years, they're still valid," Chartrand said. "If we could get the funding, those are still worth running."

"They were supposed to take it out to sea. I think beyond the Continental Shelf. But there was a common joke among people that they only took it as far as they needed to, just out of sight, and started dumping right there." — Deposition of Ferdinand Suhrer, Montrose employee, July 30, 1996

M. Indira Venkatesan, a geochemist at UCLA who studied how chemicals moved through the sea, had taken one of these samples in the early 1990s and run her own analyses. She, too, concluded there must be a DDT source in the ocean much larger than just what had come out of the sewage closer to shore.

She collected additional sediment cores from the seafloor by a manual pulley that her technicians and graduate students spent hours pulling up. Her team distinguished the DDT "fingerprint" for Montrose's ocean-dumped waste and discussed the upward and downward diffusion of DDT in the sediments.

"It gets resuspended and remobilized. That's why you see it all over the basin," she said. "I knew, I just knew, this DDT source was significant, just from the chemical analysis, but we couldn't show the extent of the dumping, nor the number of barrels."

Back in court, the arguments were focusing on the more tangible: the hundreds of tons of DDT and PCBs, another toxic chemical, that had been released two miles off the coast of Palos Verdes where the sewage emptied into the ocean. Many saw the need to make this public health problem — much closer to shore, with visible harm to humans and the ecosystem — a top priority.

The site — spread across more than 17 square miles — was declared a Superfund cleanup in 1996. About 200 feet deep, it was considered one of the most complicated hazard sites in the United States — at least three times deeper than similar Superfund sites in Boston and New York harbors.

By late 2000, the parties decided to settle. They negotiated a consent decree midway through trial — no sides admitting fault, with an agreement that more than $140 million would be paid by Montrose, several other companies that owned or operated a share of the plant, and local governments led by the Los Angeles County Sanitation Districts.

The settlement — one of the largest in the nation for an environmental damage claim — would pay for cleanup, habitat restoration and education programs for people at risk of eating contaminated fish.

"This Decree was negotiated ... in good faith at arm's length to avoid the continuation of expensive and protracted litigation and is a fair and equitable settlement of claims which were vigorously contested," according to the decree, which mentioned that the damage claim includes "any ocean dumpsites used for disposing of wastes from the Montrose Plant Property."

Attorneys representing Montrose, when contacted by The Times, declined to comment on the new underwater data and noted that the ocean claims related to the DDT operation were resolved 20 years ago. Litigation continues to this day over other impacts from the former plant. In August, a $56.6-million settlement was finally reached over groundwater contamination.

Back at UCLA, on a recent morning in the geology building, Venkatesan thought ruefully back to those DDT years. KCBS had run a local news series on the barrels, and The Times followed the story for a brief period.

The information caught the attention of Assemblyman Tom Hayden (D-Santa Monica), the 1960s activist turned lawmaker who married Jane Fonda and was remembered as "the radical inside the system." For a few years, he pushed for more information about the barrels and an action plan, but so many unchecked environmental problems demanded attention back then.

Even Venkatesan got pulled away. As public concerns shifted from water to air pollution, her research focus changed to aerosols.

She had tried for a while longer to get the word out — giving public lectures in Santa Monica bookstores and telling whoever would listen that the deep ocean also needed healing.

"I didn't know what to do with this data; I felt bad," she said. "As scientists, we thought we could leave it to the politicians and the government to do their job.... But if the government is not proactive, then people don't care. If people don't care, then the government doesn't do anything."

Now that she's retired, her filing cabinets — filled with her work since she started in 1975 — have been moved into a basement at UCLA. She recently reviewed the data that the UC Santa Barbara researchers had uncovered with deep-sea robots, which validated Chartrand's estimates, as well as her own.

She held out her hands and said she was trembling with excitement, knowing that people might care about this issue again.

"Disposing any waste, where you don't see and forget about it, does not solve the problem," she said. "The problem eventually comes back to haunt us."

One afternoon in Santa Barbara, hunched over a computer humming with data, Valentine and Veronika Kivenson, a PhD student in marine science, scrolled through the eerie images they had gathered underwater.

They leaned in to examine an icicle-like anomaly growing off one of the barrels — a "toxicle," they called it — and wondered about the gas that bubbled out when the robot snapped one off. To have gas supersaturated in and around these barrels so deep underwater, where the pressure was 90 times greater than above ground, was unsettling. They couldn't help but feel like they were poking at a giant Coke can ready to explode.

One thing was clear, Kivenson said: This stuff is spreading. She had tried to collect sediment many meters from the barrels as a baseline to compare the samples collected right next to the source. But the baseline turned out to also have similarly high concentrations of DDT — most of them higher than the permissible threshold established by the National Oceanic and Atmospheric Administration.

"These barrels do seem to be leaking over time," she said. "This toxic waste is just kind of bubbling down there, seeping, oozing, I don't know what word I want to use. ... It's not a contained environment."

So much of this data, collected in 2011 and then again in 2013, came down to timing and good luck: The underwater robots had been on loan for a different project, but that research cruise was ahead of schedule, so they had a window of extra time to explore.

A scientist involved in the discovery of the Titanic happened to be on board, so he helped them program the robots on where to go and how to search for the barrels. A marine geochemistry lab at Woods Hole Oceanographic Institution ran the samples, and Kivenson, whose graduate fellowship and tuition were the only funding for this research, analyzed them for her PhD.

She tracked down the patent for the DDT acid waste that supposedly went into the barrels. She combed through EBay for out-of-print research books on ocean dumping and flipped through rolls of microfilm in the archive rooms of court buildings and government agencies.

She validated Venkatesan's conclusion that the DDT near the barrels did not have the same characteristics as the Superfund site — ruling out the possibility that this was just DDT from Palos Verdes that somehow traveled farther into the ocean and settled onto the deep seafloor. One key difference was that the barrel samples contained no PCBs, which are abundant in the contamination near the sewage outfall.

Each barrel seemed to contain acid waste with about 0.5% to 2% technical-grade DDT — which, at half a million barrels, would amount to a total of 384 to 1,535 tons of DDT on the seafloor. The distribution was patchy; one hot spot had a concentration of DDT that was 40 times higher than the highest level of surface sediment contamination recorded at the Superfund site.

All told, she concluded that the total amount of DDT from the dumping seemed comparable to the estimated 870 to 1,450 tons that had been released through the sewer.

But in the end, these are still extrapolations — we don't know how much is actually down there, said Kivenson, who published these findings last year in the journal Environmental Science & Technology and is now a postdoctoral fellow at Oregon State University. Logical next steps would be to somehow map and identify just how many barrels there are, determine any hot spots, and study how much the chemical is leaking and spreading and accumulating.

Valentine tried calling those with the power to do something about these barrels: the EPA, which has been in charge of cleaning up the Superfund site. But the EPA, it turns out, hasn't even figured out what to do with the DDT problem that got all the attention and millions of settlement dollars. After more than 20 years of meetings and high-level studies, the site off the Palos Verdes shore has become its own controversial saga.

A pilot experiment more than a decade ago to bury the DDT under a thick cap of clean sand showed mixed results. Then sampling in 2009 suggested that most of the DDT had mysteriously vanished — prompting a burst of headlines and more internal paralysis. The longtime project manager unexpectedly retired, and many of the scientists who had dedicated decades of their careers to the chemical have also either retired or moved on.

Many, when reached, said they had not been involved with the site for a number of years.

"I feel like something's happened at the site; it just sort of died. It's been very weird," said Robert Eganhouse, a research chemist at the U.S. Geological Survey who had been studying the Superfund site and the breakdown rates of DDT since the 1970s.

His last meaningful exchange with the EPA was in late 2016, when he submitted an immense amount of data and a final synthesis report for the site — a research endeavor that took more than eight years and cost millions of dollars. To this day, Eganhouse, who recently retired, is not quite sure what the EPA did with this information.

Judy Huang, the Superfund's project manager for the past decade, when reached by The Times, directed questions to regional headquarters.

In an email, an EPA spokeswoman said the agency had suspended capping efforts and collected new data that showed twice as much DDT as the 2009 results. The EPA is now reassessing its approach: "We are updating our evaluation of the mechanisms of how the DDTs and PCBs in the sediment impact human health and the environment in this complex system."

In the meantime, projects to restore local kelp forests, wetlands, seabirds and underwater habitats have been supported over the years with the settlement money, as well as education outreach that helped prevent anglers and vulnerable communities from eating poisoned fish.

Fish remain contaminated, but the concentrations seem to be slowly going down, according to findings from the EPA's most recent five-year review of the site, released last fall. The bald eagles and peregrine falcons are coming back after years of human assistance, and nature seems to be healing itself over time.

After all these years of costly stops and stalls, some think a so-called monitored natural recovery approach might just be the best solution. The EPA plans to start a new feasibility study that aims to lead to a final cleanup strategy. That study is not expected to be published for another four years.

Mark Gold, who had championed the DDT problem as a marine scientist since the 1990s, could barely find the words to describe how he felt about the attempted cleanup of the Palos Verdes shelf.

"To have the EPA say, 25 years later, that maybe the best thing to do is to just let nature take its course is, frankly, nothing short of nauseating," he said.

When asked about the barrels, he was so shocked he had to pause and grab a calculator to process the amount of DDT that could be in the deep ocean. At an absolute minimum, he said, there needs to be further investigation into how much is actually down there and how much this dumping has harmed the ecosystem.

Gold, who is now Gov. Gavin Newsom's deputy secretary for coast and ocean policy, said he had heard stories of illegal dumping back when he was helping state and federal officials build the case against Montrose. But there was no firsthand evidence in the 1990s, he said, nor a sense of whether it was five barrels, 10 or 20.

"Nobody in their worst nightmares," he said, "ever thought there would be half a million barrels of DDT waste dumped into the ocean off of L.A. County's coast."

For scientists today, DDT poses a new generation of complications. Dilution, it seems, just means the problem re-accumulates elsewhere. In the environmental health laboratory at San Diego State's School of Public Health, Eunha Hoh recently discovered the chemical had wound its way into dolphins in unexpected ways.

Marine mammals, like humans, nurse their young and live long lives. Slow to evolve, their long-term health is a window into the lasting impacts of chronic exposure and accumulation — and how these chemicals get passed onto babies. As some of the largest predators of the sea, they're also an important indicator of the ocean's overall health.

So when Hoh sampled the blubber of eight adult dolphins that had lived deeper off the coast of Southern California, she was surprised to find significant amounts of 45 DDT-related compounds. Every dolphin she tested had washed up dead — and had accumulated much more of these chemicals than dolphins tested in Brazil and elsewhere around the world.

"DDT contamination — is it really going down in Southern California? Can we really say that, or are we missing something," said Hoh, who also serves on the California Ocean Protection Council's science advisory team. "Sure it was banned decades ago, it might be manageable globally, but Southern California? We're different. Our ocean is so much more polluted with DDT. We cannot just say, 'That's done; we can move on to other things.'"

Hoh's expertise is in discovering new chemicals, but she remains mystified by how DDT keeps reappearing in new and unexpected ways. Where, she often wonders, is all this DDT coming from?

When she first heard about the barrels scattered across the seafloor, it was as if someone finally handed her missing pieces to a puzzle that had never quite added up.

The questions came tumbling out. If that much more DDT is out there but forgotten, and no one knows to study it, she said, how will we ever understand the true legacy of this chemical?

The ocean's health, scientists say, is inseparable from our health and the health of the planet. (Allen J. Schaben / Los Angeles Times)

Current monitoring shows that the local ecosystem, on the whole, is stable. But what's unclear are these long-term unknowns, said Keith Maruya, who co-authored the dolphin study and retired last year as the Southern California Coastal Water Research Project's head of chemistry.

"It's not like something's going off the cliff. But what we don't know is whether these things are going to have a longer-term, more subtle effect — are some populations really, really slowly going to be declining?" he said. "We don't know the answer. Moreover, we don't really have the tools yet to answer that question fully."

He jolted up in his chair when the discovery of the barrels came up in a recent conversation.

"Wow. Wait, how many did they find? I need to write this down."

He jotted a few numbers, then silently compared this with the known quantity of DDT dumped at the Superfund site.

"If nobody accounted for this second source ... if you've got twice the amount," he said, thinking aloud. "It's such a staggering number, but what does this mean? ... The bottom line is always going to be: So what? We have a chemical out there, so what?"

At the Scripps Institution of Oceanography, in a developmental biology and environmental toxicology lab overlooking the sea, Amro Hamdoun has been pondering this question for much of his life.

He's found through molecular studies that "persistent organic pollutants," like flame retardants and DDT, can block a key protein from eliminating toxins from the human body — a clue, perhaps, into why they bioaccumulate. Even in small amounts, these contaminants could interfere with the human body's natural ability to defend itself.

Hamdoun teaches "Silent Spring" and DDT to his students as an example of how the world used to be — but can't help but wonder how much the jobs and science of the future will be dealing with these messes of the past.
"There's a broader problem of thinking of the ocean as this unlimited garbage dump that's going to take up our CO_2, take up our mercury, deal with the plastic that we don't throw away properly, be a dumping ground for pesticides, deal with whatever is in runoff — and that our health is going to be separable from that," he said. "But what we're learning more and more is that our health and the ocean's health are pretty inseparable."
At what point, he asked, does it become our prerogative, as people who live in a shared society, to decide what it is that we want to put in our environment — and our bodies?
He leaned forward in his chair, hands clasped, head bowed, like Valentine and Chartrand and so many who came before.
"These chemicals are still out there, and we haven't figured out what to do," he said. "They are an issue, and we still don't have a plan."

WILDFIRES

'It's been a lot to navigate.' Fresno County residents struggle to access Creek Fire relief

https://www.fresnobee.com/news/california/fires/article246695502.html

The Federal Emergency Management Agency is expected to begin work in the coming week in Fresno County to clean up destruction related to the Creek Fire, officials said Saturday.
The Creek Fire has burned 358,967 acres and hundreds of buildings in the Sierra National Forest and was 61% contained through Saturday morning.
One of those structures lost belonged to Allyson Brooks, who said the home where she grew up in Alder Springs and later shared with her husband, Drew Nelson, was destroyed after flames hit the area around Auberry Road.
A day after the federal government originally rejected California's request for financial relief to help with the latest series of wildfires throughout the state, California Rep. Tom McClintock and Gov. Gavin Newsom said Oct. 18 that California will receive what could be hundreds of millions of dollars to help recover from the state's worst fire season in history.
The Saturday gathering near Shaver Lake was important because the process to get questions answered over the phone has been difficult, Nelson said.
"It's been a lot to navigate. The FEMA website, the phone — I haven't had much success there," he said. "I know they're here to help and they're going to be a great resource for a lot of people."
Many of the residents who lost their homes still need to decide how much help they want from FEMA. Nelson said he hasn't decided if he should get his insurance involved immediately or whether to wait what could be weeks for FEMA to get involved.
More than 850 structures have been wiped out by the blaze and another six dozen have been damaged.
In what is being called Phase 1, the U.S. Environmental Protection Agency and state partners will inspect property and remove any hazardous waste that could leak into groundwater at no cost to homeowners. That would be substances such as oil, pesticides, paint and other waste.
Many of the people who came to the Shaver Lake gathering asked officials how much work they can do to clean up their property in the meantime. Fresno County Director of Public Health Dave Pomaville advised residents to hold out as long as possible.
"I want to be very clear that if you can wait, if you can take advantage of the government program, we would encourage you to do that," he said. "If you have to get moving, I just want you to know what the steps are."
Once the EPA begins its work, it is expected to stay in the area for about eight weeks, according to Tara Fitzgerald, an on-scene coordinator for the agency who is based in San Francisco.
Residents who begin the cleanup on their own could forfeit receiving any federal help, according to Assemblymember Patterson.
Residents can opt out of the federal program, but may need the correct permits and should be aware of how and where they can legally dispose of the household hazardous waste.
"The time is running out. The rains and the snow are coming," Patterson said. "If we don't get this stuff done, the toxicity is going to flow into our rivers."
FEMA ASSISTANCE
Officials recommend those seeking FEMA help to create a personal online disaster assistance account at disasterassistance.gov. FEMA's help line is 800-621-3362.

The FEMA Individuals and Housing Program is also offering assistance to help pay for temporary housing and other needs not covered by insurance. The initial rental award is for two months and may lead to further assistance.
It can also cover personal items and expenses like furniture, appliances, clothing, textbooks or school supplies; replacement or repair of tools and other job-related equipment; vehicle repair; and medical/dental bills.
Residents can also register or get help through the FEMA app on a smartphone or tablet, or by calling the FEMA helpline at 800-621-3362 (TTY 800-462-7585) from 7 a.m. to 10:30 p.m. daily.

EXIDE

Bankruptcy court allows Exide to back away from polluted properties

https://www.readingeagle.com/news/bankruptcy-court-allows-exide-to-back-away-from-polluted-properties/article_84376e6c-1544-11eb-9f4b-5bce3667e78d.html

A Delaware bankruptcy court has approved a plan in which money to clean up Exide's lead-polluted Berks County properties would be put in a trust fund.
The Environmental Response Trust would designate $10 million for "ongoing containment and safety efforts" at 16 of Exide's former sites in Pennsylvania and nine other states. The Environmental Protection Agency, which agreed to the trust fund, said in an Oct. 14 filing it would not be enough for full cleanup.
What that means for the Berks County properties, including its facility at 3000 Montrose Ave. in Muhlenberg Township, is not clear.
The bankruptcy will impact Exide's environmental liabilities at the Reading facility, the EPA said on its hazardous waste cleanup site. The agency said it is working with the Department of Justice and the Pennsylvania Department of Environmental Protection to negotiate with Exide in the bankruptcy proceedings. Once the settlement of the bankruptcy is finalized, the EPA said, it would schedule a virtual public meeting to present the outcome of the proceedings and to discuss the impact to the environmental cleanups.
"While EPA remains in discussions with PADEP and the bankruptcy trustee over how to most efficiently use available funds to address the environmental cleanup at the Reading facility, EPA currently estimates those funds as being at least $2.5 million," said David Sternberg, EPA press officer in an email statement.
That amount is short of the most recent estimate $6.23 million to clean up and monitor the site. It is not clear where the money to finish the job will come from.
Jamar Thrasher, a DEP spokesman, said in an email statement that the department has actively participated in the Exide bankruptcy case, trying to ensure the most advantageous outcome for Pennsylvania.
"While the settlement proceeds will not be enough to completely address all environmental concerns, the court-approved settlement avoids the abandonment of the Reading site and ensures that there is no immediate and identifiable harm to the public's health and safety," Thrasher said.
"Please note that the plan of reorganization has been confirmed over California's objection. DEP will work with EPA and the Environmental Response Trust that now owns the Reading site to address outstanding environmental concerns in an orderly fashion."
California state and local officials objected to the settlement, which would have given far less than needed to clean up Exide's Vernon battery plant and leaves the state and taxpayers on the hook to pay for continued environmental cleanup.
Exide's Muhlenberg facility and its environmental impact on the soil and water in the surrounding area has been under scrutiny of the EPA for many years.
The plant was idled in 2013. An adjacent facility is still operating a plastics recycling operation with a small number of employees.
County wants new evaluation
Berks County Public Relations Officer Stephanie Weaver said the county is still reviewing the judge's bankruptcy ruling with its counsel and consultants, and the effect the ruling may have on the local Exide property.
"The County stands by the position outlined in our recent letter to EPA that the Laureldale site needs to be cleaned up and properly closed to protect public health and safety," Weaver said in an email statement.
In September, Berks County commissioners had challenged a proposed cleanup and asked the EPA for a public hearing and for a new evaluation. The county said the EPA should conduct a new risk assessment in light of recent science and lack of monitoring of children's blood-lead levels in the area.

"As an overarching issue, the commissioners have grave concerns that EPA is proceeding to implement and finalize a cleanup in 2020 that was designed and based on 1990 science," consultant Fred Osman wrote to the EPA on behalf of the county.
Exide's American assets were sold in July. A judge approved the sale in August. Affiliates of Atlas Holdings LLC paid $179 million in a transaction for seven battery plants and two lead recycling and recovery facilities. Not included in the sale were 16 so-called "nonperforming properties," that were abandoned and/or environmental liabilities.
Bankruptcy court documents list several Berks properties that will be abandoned by Exide and placed in the trust. In addition to the Muhlenberg Township plant, there are properties surrounding the Bernhart Reservoir: several residential properties on Spring Valley Road and a vacant plot at Isabelle Court and Josephine Drive. Also mentioned is a site near Hamburg.

EPA GRANTS IN CALIFORNIA

San Mateo Secures $277M EPA Loan For Clean Water Program

https://patch.com/california/sanmateo/san-mateo-secures-277m-epa-loan-clean-water-program
SAN MATEO, CA – The City of San Mateo, in partnership with Foster City, has secured a $277 million load from the U.S. Environmental Protection Agency to support the Clean Water Program, San Mateo officials said Tuesday in a news release.
The Water Infrastructure Finance and Innovation Act (WIFIA) loan will save residents and ratepayers up to $55.4 million in interest costs as the loan will fund nearly half of the critical upgrades and expansion of San Mateo's wastewater treatment plant.
The Clean Water Program is a $1 billion, 10-year capital infrastructure improvement program to repair, replace, and upgrade aging sewage conveyance and wastewater treatment infrastructure, serving approximately 170,000 San Mateo County residents.
This infrastructure improvement program will help ensure heavy rainstorms don't contaminate San Mateo's streets, creeks, lagoons, beaches, and ultimately, San Francisco Bay.
A second WIFIA loan offer from the EPA of $85 million is still being considered.
The Clean Water Program, San Mateo Public Works Department's largest initiative, is one of only six programs in the Bay Area, and 39 such programs across the country, shortlisted for the federal WIFIA loan.
The loan will help to pay for the modernization of the City's wastewater treatment plant, which will improve the quality of water discharged into the San Francisco Bay. Construction on the state-of-the-art treatment plant began in September 2019 and is expected to conclude in 2024.
"As we sought funding solutions for our $1 billion program, the WIFIA funding became vital to our funding structure and we are thankful for the encouragement from our City Council and the advocacy of our federal partners to see it through, San Mateo Public Works director Brad Underwood said.

$30 million in EPA grants to help valley growers replace polluting tractors and almond harvesters

https://www.bakersfield.com/news/30-million-in-epa-grants-to-help-valley-growers-replace-polluting-tractors-and-almond-harvesters/article_fc153eb0-14a8-11eb-846d-f75d5bd9c9cd.html
It's no secret that the San Joaquin Valley has an air quality problem, maybe the worst in the nation.
And one tool officials have used for years to help clear the air is harnessing millions in federal dollars to assist valley growers in replacing old, polluting tractors and other farm equipment with new, cleaner equipment.
This year, the feds went big.
The San Joaquin Valley Air Pollution Control District announced Thursday in a news release that it will augment its grant program with more than $30 million in additional U.S. Environmental Protection Agency funding to replace old agricultural tractors and nut harvesting equipment.
"Grant funds such as these recognize the partnerships with valley farmers, businesses and residents to expedite emission reductions in the San Joaquin Valley," Samir Sheikh, executive director of the valley air district, said in the release.
"With these funds and matching investments by local partners, the EPA is acknowledging the unique challenges of the valley and providing much-needed financial assistance," he said.
This year's two awards represent the largest granted to-date by EPA under the highly competitive Targeted Airshed Grant Program, said the air district.
The district's agricultural tractor replacement proposal was selected for funding in the amount of $20 million.

But the biggest surprise may have been the $10.3 million granted to replace aging almond harvesting equipment with low-dust equipment. That program was new last year, and only about $2 million has been spent on it valleywide. Until now.

According to the California Almond Board's own informational materials targeted toward growers, the EPA incentives can help growers stretch their budgets and allow them to start thinking about being ready for next year's harvest — and reaching the almond industry's Almond Orchard 2025 Goals, which include reducing harvest dust by 25 percent.

Meanwhile, hundreds of millions in federal dollars have been spent in incentives for the ag industry with the goal of improving the valley's air quality.

To date, the valley air district's Tractor Replacement Program has provided $360 million to replace more than 6,900 older, high-polluting agricultural tractors with new, significantly cleaner units, the district said. The $20 million from this latest grant will help fund the replacement of some 526 additional tractors with significantly cleaner Tier 4 tractors, with significant matching funding provided by the district and grant recipients.

The district's Low Dust Nut Harvester Replacement Program, still in its infancy, has begun the process of replacing 29 pieces of nut-harvesting equipment. But with more than $10 million from this new grant, some 170 pieces of equipment are expected to be replaced.

A complete listing of program requirements for both the Tractor Replacement Program and the Low Dust Nut Harvester Replacement Program can be found at valleyair.org/grants.

CALIFORNIA

This Week in Fresnoland: A Drinking Water Guide

https://www.fresnobee.com/fresnoland/article246670672.html

Contaminated and unreliable drinking water is not isolated to a few rural communities in our region. It's a huge problem facing both large and small communities. It's partially the legacy of agriculture and development, which has for decades left contaminants to sit in underground aquifers that many of us rely on. It's also because our water agencies are so fragmented, leaving dozens of tiny agencies on their own to solve really expensive, technical problems. And — because we continue to pump groundwater at unsustainable rates — the level of contaminants in the water concentrates at levels that are unsafe to drink.

Nearly 180,000 residents in Fresno, Tulare, Kings and Madera counties live in water districts that are out of compliance with state health standards. That doesn't include people who rely on private domestic wells that are not regulated by the State Water Board and may be contaminated.

Let's be clear: there's actually a ton of information about drinking water. But it's not always easy for most people to understand. I spend a lot of my time learning about water, and it still takes me a while to understand how to read the annual drinking water report that the EPA requires water agencies to send to their customers.

And drinking water regulations are confusing!

That's why we created the Fresno Bee/Fresnoland Drinking Water Guide to make it as easy as possible for you to find answers to a few basic questions:

- Is my water safe to drink?
- Where does my water come from?
- Whom should I contact if I am concerned about my water?

But, importantly — if your water system does have contaminants detected at unsafe levels, what should you do about it? What are the health effects? Can you treat it with a typical Brita filter, or do you need to boil the water prior to consumption?

The guide includes:

- An interactive and searchable map of water systems
- A searchable database
- A guide to common contaminants and what you need to know about them
- A video walking through how to use the database

The guide is also available en Español.

The interactive map includes contact information for every water system, so it's easy to call or email your water representatives and share your questions and concerns directly with them.

Fifth anniversary: Here's how the Aliso Canyon gas leak has impacted the entire state

https://www.dailynews.com/2020/10/24/fifth-anniversary-heres-how-the-aliso-canyon-gas-leak-has-impacted-the-entire-state/

Five years ago this week, the largest-ever U.S. methane leak was discovered near Porter Ranch in Los Angeles' San Fernando Valley.

Disaster snapshot

The leaky well was one of 115 wells connected to a subsurface storage reservoir in the Aliso Canyon gas field. The field has been used for natural gas storage since 1973 and is the fourth largest facility of its kind in the U.S.

There were an estimated 109,000 metric tons of methane leaked, which is considered a large environmental disaster due to harmful emissions.

Health effects?

Southern California Gas points to the state Office of Environmental Health Hazard Assessment's conclusion that methane odor, rather than chemicals used to stop up the gas leak, may be the culprit of the symptoms reported to the Department of Public Health. While that study says the coughing, wheezing, worsened asthma, nosebleeds, headaches, dizziness and skin rashes are more consistent with "low-level exposure to malodorous substances" — people reported the smell of rotten eggs — many residents and activists challenge the idea that the only harm was from the smell. A health study on the short- and long-term health effects of the leak is about to get underway and community members are calling on the health department to subpoena information from the utility.

Meanwhile, attorneys on a case against SoCalGas and parent company Sempra Energy, involving nearly 36,000 plaintiffs, also dispute the idea that the health risks were minimal and accuse the utilities of misrepresenting and continuing to withhold from the public information about what was released.

Mitigation

Methane is a potent greenhouse gas with nearly 84 times the heat-trapping power of carbon dioxide over a 20-year period, according to the EPA. The emissions from the Aliso Canyon methane leak contribute to global warming and its detrimental consequences for the environment, according to the California Air Resources Board. CARB announced in February 2019, SoCalGas agreed to pay a total of $119.5 million in penalties for the leak with $26.5 million the cause of reducing 109,000 metric tons of methane released.

Methane digester

Since California's 1.4 million dairy cows are a large source of methane in the state, SoCalGas's agreement calls for construction of manure methane digesters as a primary means to reduce dairy emissions and offer the added benefit of capturing and recycling methane as renewable natural gas for energy.

"This agreement will mitigate the methane leak itself and will have a positive impact across California while providing long-term funding for air quality improvements in the parts of the L.A. Basin most directly affected by what happened at Aliso Canyon," California Air Resources Board Chair Mary D. Nichols said.

SoCalGas paid $26.5 million to an account to be directed as loans to California Bioenergy to build 12 dairy digester projects, three conditioning facilities and pipelines to connect the digesters to the conditioning facilities and common carrier pipelines system.

SoCalGas is responsible for ensuring the projects are in operation that are projected to mitigate at least 109,000 metric tons of methane over a 10-year period. The California Air Resources Board is monitoring the projects which is under construction until 2021 in the San Joaquin Valley. Full mitigation may be achieved by 2031.

Methane constitutes approximately 9% of the greenhouse gas emitted in California. Dairy manure is responsible for about 25% of the state's total methane emissions.

Views of Southern California by NASA's Methane Source Finder NASA's Methane Source Finder, which provides methane data for California. The data are derived from airborne remote-sensing, surface-monitoring networks and satellites and are presented on an interactive map.

The NASA/JPL team identified more than 550 individual point sources emitting plumes of highly concentrated methane. Ten percent of these sources, considered super-emitters, contributed the majority of the emissions detected. The team estimates that statewide, super-emitters are responsible for about a third of California's total methane output.

Scientists estimate that most methane emissions in California are driven by industrial facilities, such as oil and gas fields, large dairies and landfills.Methane emissions in California are dominated by landfills 41%, followed by dairies 26% and the oil and gas sector 26%.

NATIONAL

EPA eases permitting for modifications to polluting facilities

https://thehill.com/policy/energy-environment/522337-epa-eases-permitting-for-modifications-to-polluting-facilities

The Environmental Protection Agency (EPA) on Thursday finalized a rule that eases the permitting process for modifications made to polluting facilities.

The rule changes the way the threshold for a more stringent type of permitting is calculated, with EPA Administrator Andrew Wheeler arguing that the action incentivizes industry to implement technology that would lessen air pollution.

"This rule incentivizes installation of new technologies that can both improve operator efficiency and reduce air pollution," he said in a statement.

Whether or not facility modifications trigger the stricter air pollution permitting process is determined using a two-step process.

The first step seeks to determine whether the modification would cause a "significant emissions increase." The second step seeks to determine whether the modification and other projects undertaken at the pollution facility within a specific time frame together result in a significant net increase in pollution emissions.

If both conditions are met, facility modifications need pre-construction permits under a program called New Source Review.

However, the new rule changes the way that the first step is calculated, accounting for both emissions increases and emissions decreases caused by the modification rather than just the increases.

The change, first proposed last year, codifies a 2018 memo from then-EPA administrator Scott Pruitt which said that decreases should be considered in the first step of the process.

The new rule is the latest in a string of actions taken on by the EPA to weaken requirements or ease permitting or standards for polluters.

Earlier this month, the agency finalized a rule that could reclassify "major" sources of pollution as minor ones, allowing facilities to abide by less-stringent emissions standards.

And in July, it finalized a rule speeding up the review process for industry permits, which critics said would limit communities' ability to fight them.

Court allows EPA to delay rules limiting release of methane from landfills

https://www.sfchronicle.com/environment/article/Court-allows-EPA-to-delay-rules-limiting-release-15668856.php

A federal appeals court says the Trump administration acted legally in authorizing itself to delay Obama administration rules intended to limit emissions of methane and other greenhouse gases and pollutants from the nation's landfills.

Regulations of solid-waste landfills, a significant source of air pollution, were first proposed under the Clean Air Act in 1991 and were finally adopted by the Environmental Protection Agency in August 2016. They set guidelines to reduce emissions and timetables for plans to implement those standards: The EPA was to review proposals from individual states by September 2017 and enact its own plan for the rest of the nation by the end of November 2017.

When the agency failed to meet those deadlines, U.S. District Judge Haywood Gilliam of Oakland, in a suit by California, other states and environmental groups, ruled in May 2019 that compliance was mandatory and ordered the EPA to submit a federal plan by November 2019, with progress reports every 90 days.

Instead, the agency adopted new regulations postponing its deadline to November 2021. Gilliam rejected the change last November, saying the EPA was capable of meeting the earlier cleanup timetable, had no legitimate reason to change it and lacked the authority to do so.

The Ninth U.S. Circuit Court of Appeals in San Francisco disagreed Thursday. In a ruling that mentioned air pollution only briefly, the court said the EPA had changed the law by passing new regulations and was no longer bound by its earlier schedule.

"This case is not just about trash, landfills or emissions guidelines; it's also about the separation of powers" between the executive branch and the judiciary, Judge Patrick Bumatay said in the 3-0 ruling.

"We see a greater threat to the separation of powers by allowing courts to pick and choose what law governs the executive branch's ongoing duties," Bumatay said. "To continue to adhere to (Gilliam's) injunction based on a legal duty that has since disappeared is a harm in and of itself."

Bumatay and another member of the appellate panel, Judge Kenneth Lee, were appointed by President Trump. The third panel member, Judge Eugene Siler of the Sixth U.S. Circuit Court of Appeals in Cincinnati, temporarily assigned to the Ninth Circuit, is an appointee of President George H.W. Bush.

The states and environmental groups are challenging the EPA's postponement of the emissions standards in a separate suit before a federal appeals court in Washington, D.C. Rachel Fullmer, a lawyer for the Environmental Defense Fund, said Thursday the advocates hope for better results in that court. They could also ask a new presidential administration to restore the earlier rules.

"Landfills are the nation's third-largest source of climate-destabilizing methane pollution," Fullmer said in a statement. "They also emit other hazardous pollutants like benzene, which causes cancer, and volatile organic compounds that cause smog. It's vital that we get these unhealthy pollutants out of our air without undue delay."

Minority communities question election-year push by EPA

https://www.sandiegouniontribune.com/news/california/story/2020-10-25/minority-communities-question-election-year-push-by-epa

TRAVERSE CITY, Mich. —

Theresa Landrum lives in southwest Detroit, where residents complain frequently about dirty air. Tree-shaded neighborhoods with schools, churches and parks lie on either side of an interstate highway and in the shadow of a sprawling oil refinery that belches soot and fumes.

Landrum, a Black retiree from General Motors and a longtime anti-pollution activist, wasn't impressed when Environmental Protection Agency chief Andrew Wheeler recently pledged $200,000 to promote "community health initiatives" in her section of the city during his blitz of visits to battleground states in the presidential election campaign.

"Is this a joke?" she said. "It would take billions of dollars to fix what is wrong with our environment here. All of a sudden he's going to throw somebody a grain of sand in a community where people have been poisoned for decades?"

Under President Donald Trump, the EPA has slashed support for some some programs and regulatory protections benefiting disadvantaged communities. His budgets have proposed killing or cutting funds to enforce regulations promoting environmental justice — fair treatment of racial minorities and low-income residents who live near polluting industries and are disproportionately exposed to contamination — although Congress has continued most of the spending.

Now, the agency is portraying itself as a champion of such communities — an initiative skeptics contend is more about wooing Black and Latino support as Trump seeks re-election than protecting their air and water.

Wheeler's approach amounts to "window dressing" intended to divert the attention of minority voters from the Trump administration's weak environmental protection record, said Mustafa Santiago Ali, vice president of environmental justice, climate, and community revitalization for the National Wildlife Federation.

Wheeler and other top EPA officials have fanned out nationally in recent months, particularly in swing states such as Michigan, holding news conferences to distribute grants and tout the Trump administration's record. During his latest Michigan visit Friday, he announced $10.7 million to replace lead service lines in disadvantaged communities in Grand Rapids and Benton Harbor, and educate the public about dangers of lead-tainted drinking water.

Trump's EPA "has taken meaningful steps to improve the health and environmental conditions for Americans everywhere, especially those in low-income and under-served communities," Wheeler said Sept. 30 in Traverse City, Michigan, where he announced the $200,000 for Detroit.

The funds will help develop strategies for notifying vulnerable residents more quickly about public health risks, including the coronavirus, EPA said.

U.S. Rep. Rashida Tlaib, a Democrat whose district includes the section of Detroit targeted for the spending, described it as "an insulting drop in the bucket."

"These grants are a pitiful attempt to distract from the sky high, mounting costs of the Trump EPA's prioritizing corporate polluters over Black and brown communities," Tlaib said.

Nine other grants of the same amount were awarded this year for neighborhood and tribal projects. One in Minneapolis will provide education on lead paint dangers, asthma hazards and use of disinfectants to prevent coronavirus. Another will focus on minimizing air and water pollution during wildfires, floods and other disasters at the Coyote Valley Band of Pomo Indians Reservation in California.

In a September speech commemorating the 50th anniversary of EPA's founding, Wheeler said such efforts would be a focal point of a second Trump term. The agency would promote "community-driven environmentalism" built on restoring polluted industrial sites, better treatment of drinking water tainted with lead or chemicals, and other locally focused actions, he said.

The agency lost sight of its core mission before Trump's arrival, Wheeler said, focusing excessively on climate change to impress "foreign capitals, over the interests of communities within their own country."

But critics say the administration's spending in those communities is undercut by its rollback of environmental regulations and weak enforcement against polluters.
"It's like a doctor knowing what the root cause of a problem is but saying we're going to just deal with the symptoms and not focus on a real cure," said Ali, a former EPA senior adviser who worked on environmental justice for 24 years before resigning less than two months after Trump took office. "If you're not willing to strengthen existing laws and make sure people are protected, it's just sugar coating."
Academic studies have shown low-income and minority communities suffer disproportionately from pollution, partly because so many landfills, factories and other sources are located there. Wheeler acknowledged that in his speech. But he said environmental regulation sometimes makes things worse by, for example, making it hard to build new factories on contaminated sites.
The Trump administration has hampered research identifying unfair burdens on such communities while weakening standards for pollutants that hit them especially hard, such as mercury, ground-level ozone and coal ash contaminants, the Union of Concerned Scientists said in a 2019 report.
Wheeler says "environmental justice is an important concern to the agency, but his agency's actions aren't following through with his promise," said Anita Desikan, a research analyst with the nonprofit advocacy organization.
She also noted EPA's decision to cut back on enforcing key regulations for polluting industries over the summer — a move Wheeler said was necessary to help businesses take coronavirus precautions.
Wheeler defended EPA's enforcement record during his September appearance in Michigan. When proposing regulatory rollbacks, he said, the agency has offered replacements that would protect the environment in more cost-effective ways.
Southwest Detroit has been the subject of numerous air pollution and public health studies. The 250-acre Marathon Petroleum Co. refinery reached a proposed settlement with state regulators this summer for 10 air quality violations. The area also has a coal-fired power plant, steel mills and other industrial sites.
An hour's drive north is Flint, a majority Black city of nearly 100,000 still recovering from lead contamination of its drinking water that prompted $100 million in federal assistance for replacing service lines and other infrastructure. Karen Weaver, who was mayor at the height of the crisis, said the problem might have been avoided if governments had given due regard to environmental justice.
"It seems late to be having this conversation, but of course better late than never," Weaver said, adding that the city could have used one of the $200,000 grants.
Landrum, the Detroit activist and a member of the Michigan Advisory Council on Environmental Justice, said the Trump administration must do more than provide modest grants and make promises to earn credibility with environmentally degraded communities.
"Environmental racism, systemic racism, exists in Detroit and Michigan and throughout the U.S.," Landrum said. "But people don't want to see."

Trump's EPA refuses to reduce pollutants linked to coronavirus deaths

https://www.salon.com/2020/10/26/trumps-epa-refuses-to-reduce-pollutants-linked-to-coronavirus-deaths_partner/
In April, as coronavirus cases multiplied across the country, the head of the U.S. Environmental Protection Agency rejected scientists' advice to tighten air pollution standards for particulate matter, or soot.
In the next few weeks, EPA Administrator Andrew Wheeler likely will reaffirm that decision with a final ruling, despite emerging evidence that links particulate pollution to COVID-19 deaths.
There was enough evidence to support a stricter standard before the pandemic, said Christopher Frey, an environmental engineering professor at North Carolina State University who studies air pollution. The added threat from the coronavirus is like "icing on the cake," he said, and should compel Wheeler to adopt an even more stringent limit.
Particulate matter kills people. "It is responsible for more deaths and sickness than any other air pollutant in the world," said Gretchen Goldman, a research director at the Union of Concerned Scientists.
Wheeler's decision was specifically about fine particulate matter, or PM2.5, microscopic solid and liquid droplets less than one-thirtieth the width of a human hair. The pollution comes from cars, power plants, wildfires and anything that burns fossil fuels. When people take a breath, the particles can lodge deep into their lungs and even enter the bloodstream. The pollutant causes health complications that can lead people to die earlier than they would have, and it is linked to conditions such as COPD, asthma and diabetes.
Frey was part of a 26-member scientific panel that advised the EPA on particulate pollution until Wheeler disbanded the group in 2018. Twenty of the former members continued to review the science and provided unofficial advice to Wheeler

as part of the public comment process. Their letter told Wheeler— a former coal lobbyist — that tightening the standard would avoid tens of thousands of premature deaths per year.

Firing the advisory panel and opting not to pursue a more stringent particulate standard were in keeping with the administration of President Donald Trump's dim view of environmental regulation. By one tally compiled by The New York Times, 72 regulations on air, water and soil pollution, climate change and ecosystems have been canceled or weakened, with an additional 27 in progress. EPA leadership has sidelined or ignored research by agency scientists, and career staff are censoring their reports to avoid terms like "climate change" out of fear of repercussions from political staff. Many of the changes involve narrowing the scope of science, and scientists, that contribute to policy, experts said.

The EPA has an "apparatus of particulate matter science denial" that rivals its attacks on climate science, Frey said. "If I wanted to get rid of [regulations on] particulate matter, I would do all the things Wheeler is doing."

Wheeler made his decision "after carefully reviewing [the] scientific evidence and consulting with the agency's independent science advisors," an EPA spokesperson said in a statement. "The U.S. now has some of the lowest fine particulate matter levels in the world, five times below the global average, seven times below Chinese levels, and 20 percent lower than France, Germany and Great Britain."

These standards are set "based on protection of human health," not how the levels compare to elsewhere, Michael Brauer, a public health professor at the University of British Columbia, said in an email. There are "ample studies" demonstrating health effects when particulate pollution is at levels "well below" the current standard, he said.

The National Association of Manufacturers did not return requests for comment. Jim Harris, a spokesman who represents many petrochemical facilities in Louisiana, pointed to written comments from a coalition of industry groups including the National Mining Association, American Petroleum Institute and the U.S. Chamber of Commerce.

"The evidence indicates that the current suite of [particulate matter standards] protects public health, including the health of at-risk populations, with an adequate margin of safety," they wrote to the EPA after Wheeler proposed keeping the regulation unchanged in April. More stringent standards "cannot be justified, given the substantial uncertainties in, and limitations of, the scientific evidence."

Complying with a new standard could cost the manufacturing sector nearly $20 billion and complicate the permitting process for business expansions, they wrote, citing an analysis from the American Forest & Paper Association (ProPublica asked for the report but didn't get a response before deadline). These proposed projects "create jobs and bring much needed tax revenue to local communities now in critical need of economic development," they wrote.

Wheeler's decision could delay stronger regulation for years. The Clean Air Act dictates a meticulous process for considering a new standard; each review usually takes at least five years, Goldman said. Once the EPA adopts a new rule, states have several years to adjust. If Trump loses the election and a Joe Biden administration restarts the particulate review process right away, "we're really looking at a decade before people are incentivized to reduce particulate pollution," she said.

Ignoring Evidence, Pausing Enforcement Amid a Pandemic

While scientists have yet to prove that exposure to air pollution increases the risks of dying from COVID-19, a mounting body of research suggests a link. Researchers in the U.K. and Italy have found correlations between high COVID-19 mortality rates and elevated pollution levels. A study conducted by the State University of New York and ProPublica found an association between COVID-19 mortality, particulate pollution from diesel engines and hazardous air pollutants — a class of chemicals that can cause cancer. Hazardous air pollutants are often found attached to particulate matter.

The comments from the industry coalition against strengthening the regulation emphasized the "preliminary" and "evolving" nature of research on air pollution and the coronavirus. If relevant peer-reviewed science becomes available, they said, "EPA could consider them during the next PM [standards] review."

Emerging evidence should be enough, said Mychal Johnson, co-founder of South Bronx Unite, a community organizing group in the Mott Haven neighborhood. Of all of the roughly 3,100 counties in the country, the Bronx had the highest combination of COVID-19 mortality rates and air pollution levels, according to the SUNY-ProPublica study. Johnson said the pandemic has "pulled back the scab" on the environmental harm in his neighborhood, which has high rates of asthma.

Mott Haven is flanked by two interstate highways. Asphalt playgrounds sit next to those highways, close to the pollution coming out of tailpipes. For decades, policymakers have permitted industrial sites in the area, including waste transfer stations, a FreshDirect warehouse and two natural gas "peaker" plants that generate electricity when there's high energy demand.

Sometimes the pollution is "so thick you feel it in your lungs and your throat," Johnson said. "You can't really describe the smell, it just stinks."

The community was disproportionately vulnerable when the pandemic hit, both because of the number of people who had preexisting health conditions and the number who worked front-line jobs that put their lives at risk, he said. If the EPA isn't "moving forward to make sure our policies are strong, to save lives, then we're definitely moving back[ward]."

It's too early for conclusive evidence on the coronavirus and particulate matter, said Brauer, the University of British Columbia professor. Even the official death count from COVID-19 remains preliminary, he said. There is, however, plenty of evidence from other respiratory illnesses showing that "if you're exposed to an infection and at the same time exposed to pollution, that infection is more likely to become severe."

There is also growing consensus that factors like air pollution contribute to health disparities in poor and minority communities, and those who are disproportionately affected are more vulnerable to COVID-19, he said.

Wheeler doesn't need definitive proof, said Bernard Goldstein, a professor emeritus of environmental and occupational health at the University of Pittsburgh. The law allows Wheeler to consider a "margin of safety" that acknowledges ongoing research, Goldstein said. "You have two different things that violently attack the same organs" in the respiratory and cardiovascular systems, he added. From a margin of safety perspective, it's enough to say "I've got data showing the dam is about to break."

Far from acknowledging the pandemic as an added threat, Wheeler has used it to loosen reporting requirements for coal plants and other polluters. The temporary policy, announced on March 26, said the EPA would not penalize businesses that failed to monitor or report pollution, as long as they were "making good faith efforts to comply with their obligations during this difficult time."

Nine state attorneys general sued the EPA in response. They dropped the lawsuit after the EPA ended the practice Aug. 31.

The policy has already had deadly consequences, said Claudia Persico, an assistant professor with American University's Department of Public Administration and Policy in Washington, D.C. An analysis by Persico and Kathryn Johnson, a doctoral student, found that the EPA's coronavirus policy led to a 14% increase in particulate matter emissions in roughly 700 counties with major polluters, and that change is "associated with" more than 7,300 additional deaths from COVID-19 from March 26 to July 11. The paper is undergoing peer review. Two other experts who read the study told the news publication Grist that the paper's methodology is sound.

Persico and Johnson's research controlled for the effects of pandemic shutdowns that temporarily drove down emissions in many counties. Their estimate of 7,300 deaths only accounts for the counties where the first COVID-19 deaths occurred after March 26, leaving out major metropolitan areas like New York City and Chicago, Persico said.

"Because we allowed this rollback, more people died," she said. "And that's a pretty serious thing."

The EPA says the practice did not permit any additional release of pollutants. "There is no support in the [Persico and Johnson] paper for their allegation that 'policy-induced increases in pollution' occurred," the agency said in a statement. The spokesperson pointed to a peer-reviewed study led by the University of Minnesota that "reported declines in air pollution during the COVID-19 pandemic." But that paper only captured what happened in the initial shutdowns, from March 13 through April 21, when many nonessential businesses closed and commuter traffic plummeted; particulate pollution dropped 11% in 63 counties that adopted early business shutdowns.

There was also a marginal increase in particulate matter in 59 other counties without early shutdowns, but the findings were not conclusive. The study didn't include data from after April, when pollution may have rebounded as businesses reopened, said one of its authors, Jesse Berman, an assistant professor at the University of Minnesota's School of Public Health. The study doesn't prove or disprove whether the EPA's lack of enforcement increased pollution. "It just wasn't designed to do that," Berman said.

Cementing a "Full-Frontal Assault" on Science

The particulate pollution decision shows how the Trump administration has rewritten the rules on how independent science affects regulation, Goldman said.

The latest particulate pollution review kicked off during President Barack Obama's second term. In 2018, EPA staff scientists published an exhaustive, 1,881-page summary of the science. The report found strong evidence that particulate matter can kill people through its effects on the cardiovascular system. Even short-term exposure may be deadly, it said. Additional evidence showed how it can damage children's lungs and exacerbate asthma.

Under normal circumstances, that report would have gone to a review panel of more than 20 outside scientists, including Frey. The panel included epidemiologists, physicians, biostatisticians and other experts who specialize in particulate pollution. The members work with the Clean Air Scientific Advisory Committee, or CASAC, a seven-member team that helps Wheeler determine the final standard.

But Wheeler dismissed the review panel a few days before it could weigh in on the EPA report. He and his predecessor, Scott Pruitt, also replaced most of the independent scientists on CASAC. It once had a plurality of doctors, biostatisticians and epidemiologists, and it is now dominated by state regulators from Republican states and led by a consultant with close ties to industry. None of them are experts in epidemiology — the study of how diseases affect populations, a linchpin of particulate matter research.

"All of the current members hold Ph.D.s in fields that include health sciences, toxicology, ecology, chemical engineering and risk analysis," and the majority of CASAC members recommended maintaining the current standard, the EPA spokesperson said. Wheeler has considered the committee's advice "but is also reviewing additional input provided during the public comment period," the statement added.

The EPA has turned the entire process into "a sham," said Lianne Sheppard, a professor of biostatistics and environmental health at the University of Washington. Sheppard served on CASAC from 2015 to 2018 and was a member of the now-dismantled particulate panel. The large panel existed because the science is so vast and complex that "no seven people, no matter how expert they are," can review the information on their own, Sheppard said.

Goldman said the EPA under Trump has always sought to undermine the science, as particulate matter involves "super inconvenient" math that complicates deregulation efforts.

Many environmental rules involve a cost-benefit analysis. On one side of the ledger is the price of forcing industry to comply with a new rule; on the other, money saved from avoiding pollution-related deaths and illnesses. A good cost-benefit ratio can do wonders for selling the rule to the public. Often, the strategies used to reduce one air pollutant also cut down on other pollutants like particulate matter. Those ancillary gains count as a "co-benefits."

Since particulate pollution kills so many people, even a small reduction can tip the scales in favor of regulation, Goldman said.

When the Obama administration moved to regulate mercury from power plants, for instance, the savings from reducing mercury, a poison that damages children's brains, came to just $6 million. The co-benefits from slashing particulates — a byproduct of those efforts — added up to billions.

Wheeler's EPA watered down the mercury regulation in April by disregarding the co-benefits from reducing particulate matter. Frey and other experts feared it would set a precedent. Indeed, within weeks, the EPA introduced a new regulation to codify the practice. It proposed that key air pollution rules would report co-benefits separately. Frey said it opens the door for "cherry-picking" what goes into the economic analysis.

"As soon as you start saying, 'We're going to look at this thing but not these things,' that's not benefit-cost anymore. That's just a game," he said.

The agency is now reviewing public comments on the rule.

In another move, the EPA plans to finalize a "Transparency Rule" that could force agency scientists to prioritize studies where researchers have made all of the raw data publicly available. That's simply not possible for many health studies, where doing so would reveal private medical data, Goldman said, and it ignores how these studies have already been vetted through the peer-review process. Scientists "cannot legally, ethically provide" such data, she added. "Everyone in the scientific community and their brother [has] said this is a terrible idea."

The rule could dismiss key epidemiology studies on the dangers of particulate matter, especially those that show why the current standard is inadequate, Goldman said.

Epidemiology is a complicated discipline that requires careful analysis and statistics. When researching air pollution, epidemiologists might study whether residents in neighborhoods with high levels of particulate matter are in worse health than those in areas with less pollution. They would need to control for other factors, such as income, to make sure the health effects they're seeing truly come from particulate matter.

Over decades, epidemiology has provided "this giant statistical power" that shows how harmful particulate matter can be, and the findings have been repeated in different cities, on different groups of people, with varying levels of pollution, Goldman said.

EPA's attempt to disqualify these studies is a "full-frontal assault on epidemiology," Frey said. "This administration is just taking tools out of the toolbox and scooping things out."

Three weeks ago, the agency finalized another rule allowing certain polluters to follow weaker air emissions standards. Wheeler has said the environmental rollbacks will continue if Trump is reelected.

Soledad Calvino
Press Officer | Office of Public Affairs

U.S. Environmental Protection Agency | Region 9
calvino.maria@epa.gov
Office 415.972.3512 | Mobile 415.697.6289